

Subsequent Teen Pregnancies:

Exploring the Issues, Impact and
Effectiveness of Prevention Strategies



A review and discussion of research on the factors associated with subsequent teen pregnancies, including statistical trends, economic and medical consequences, and effectiveness of prevention practices.

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Sex Information and Education Council of Canada

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Wendy Burgoyne was the project lead from the Best Start Resource Centre, a key program of Health Nexus. The Best Start Resource Centre supports service providers across Ontario through consultation, training and resources, in the areas of preconception, prenatal and child health. For more information about the Best Start Resource Centre, contact:

Best Start: Ontario's Maternal, Newborn and Early Child Development Resource Centre
c/o Health Nexus Santé
180 Dundas Street West, Suite 1900
Toronto, ON M5G 1Z8
Phone: 416-408-2249 or 1-800-397-9567
Fax: 416-408-2122
Email: beststart@healthnexus.ca
Website: www.beststart.org

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1. Introduction to the Issues

The Focus of this Report

Many service providers and organizations have a mandate to prevent subsequent teen pregnancies. Subsequent teen pregnancies are defined as second, third or additional pregnancies to a youth below the age of 20. A subsequent teen pregnancy may follow a pregnancy that ended in an abortion, miscarriage or teen birth.

This report builds on the previous Best Start Resource Centre reports (2007, 2008) related to teen pregnancy prevention and presents a critical look at the research and issues specific to subsequent teen pregnancies. It brings together relevant research in a manner that will guide service providers in their work, and asks questions such as:

- What are the statistical trends in Canada?
- What are the causal factors behind subsequent teen pregnancies?
- What are the risks/consequences of a subsequent teen pregnancy?
- Are there strategies that have been shown to be effective in preventing subsequent teen pregnancies?

The prevention of subsequent teen pregnancies is not a necessary or desirable outcome from the perspective of all teen mothers. Regardless of personal opinions, societal norms and organizational mandates, there is a need to consider a number of factors, listen to a range of voices, and critically appraise the strengths and limitations of existing research. This report summarizes recent, key research in the area of subsequent teen pregnancy.



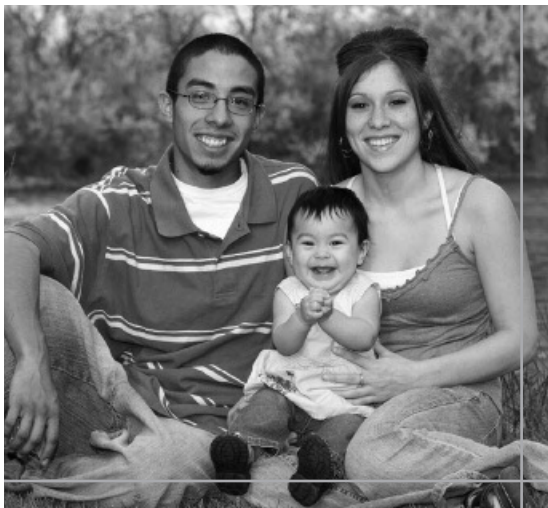
Perspectives from the medical community are examined with regards to the biological and clinical implications of rapid, repeat pregnancies and pregnancies during the teen years. The socioeconomic implications of teen pregnancies are considered, as well as studies that focus on the socioeconomic outcomes for subsequent teen pregnancies. As always, the voices of teen mothers are an important component of any discussion relating to teen pregnancy and parenting, and they are included whenever possible.

Births to teens aged 15 to 19 are the focus of this report. Since births to teens younger than 15 are extremely uncommon in the Canadian context, and the medical, social and economic issues associated with these births are unique, it is not appropriate to include this age group in a broader discussion about trends, contributing factors, and approaches to teen pregnancy. This report focuses on young women, however the issues and challenges for young men around subsequent teen pregnancies are also relevant.

Subsequent Teen Pregnancies

Subsequent teen pregnancy can be either a rapid, repeat pregnancy or an additional teen pregnancy that occurs at a longer interval from a first pregnancy. The definition of a rapid, repeat pregnancy varies in the literature and can refer to pregnancies that occur up to 24 months after a previous pregnancy (Rigsby et al., 1998; Boardman et al., 2006). Unfortunately there is often little distinction made in the literature between rapid, repeat births and births that occur at a longer interval from a first pregnancy. Research tends to focus on teen births in general, regardless of spacing. Research in the area of medical consequences related to teen births is the exception, since the biological implications of rapid repeat pregnancies versus longer inter-pregnancy intervals is the focus of some research.

Much of the research related to subsequent teen pregnancies has attempted to isolate the risk factors common to young women who have had more than one teen birth. The issues of poverty, familial and cultural norms, disengagement with school, and lack of employment prospects figure prominently in the lives of many teen mothers. For teens



who have a second birth there are confounding factors associated with relationships, mental health, and previous parenting experiences. Subsequent teen pregnancies are more likely to be intended than first teen pregnancies. Women who have more than one teen pregnancy are also more likely to report that fulltime mothering is a preferred option for them, rather than that of school or employment. This can be interpreted as either a lack of motivation to avoid a subsequent teen birth or positive motivation to pursue parenting.

Research on the effectiveness of subsequent teen pregnancy prevention interventions does not lead to a clear picture of what works and what doesn't work. Often there are slight decreases in the rates of subsequent teen pregnancies in the short-term, but long-term reductions are not as evident. Programs may result in an increase in parenting knowledge and skills even though the subsequent pregnancy rate might not decrease significantly. A program may have a number of desired outcomes all of which may differ in their rates of success.

Since research on prevention of subsequent teen pregnancy has failed to identify specific approaches that consistently achieve a significant reduction in pregnancy rates, it is not possible to recommend definitive best practices for effective prevention programming. Canadian programs for pregnant and parenting teens have not been studied for their impact on subsequent teen pregnancies, and so research from United States figures prominently. This research should be cautiously generalized to the Canadian context. The report includes an overview of interventions and their evaluations, and highlights approaches and strategies that have shown some degree of effectiveness in achieving positive outcomes.

2. Canadian Statistics

Just as the Canadian rates of teen pregnancy and birth have been decreasing since the 1990s, so has the rate of subsequent teen pregnancy (Best Start, 2007). Canadian statistics released in 2007 indicate that the annual rate of second or subsequent teen births fell from 4.8 births per 1,000 teens (15 to 19 years) in 1993, to that of 2.4 in 2003. In terms of percentages, this means that in 1993, 18.5% of all births to teens aged 15 to 19 years old were second or subsequent ones, compared to 15.2% in 2003. There has been a decrease in the number of subsequent teen pregnancies, and the proportion of subsequent teen pregnancies, as compared to all teen pregnancies.

Data Limitations

It should be noted that the Canadian rates of subsequent teen pregnancy do not include Ontario data. When subsequent teen pregnancy rates were analyzed by Statistics Canada (2007), a decision was made to exclude Ontario data due to its questionable statistical validity. With the introduction of birth registration fees in Ontario in 2000, the number of birth registrations has been negatively affected. Researchers have speculated that teen mothers, who are statistically more likely to experience economic challenges, may be unwilling or unable to pay the registration fee, and thus births in this segment of the population may be significantly underreported (Rotermann, 2007).

The accuracy of teen pregnancy rates in general is often compromised by various reporting issues (Best Start, 2007). For example, pregnancy losses are often underreported by adolescent women. Canadian abortion statistics do not consistently include age, which in turn affects the validity of teenage abortion rates. There is no published Canadian data on abortion rates specific to subsequent teen pregnancies, so abortion



data is not included in this report. As well, women who become pregnant at the age of 19, but who give birth after they turn 20, might not be included in teen pregnancy statistics.

First Nation/Métis/Inuit Populations

As with all statistics relating to subsequent teen pregnancy and birth rates, the overall national rate does not reflect the discrepancies in rates based on regional, racial, cultural or socioeconomic differences. Canadian teen pregnancy and birth statistics are generally not analyzed in terms of racial or cultural background, as they are in the United States. The exception is that of First Nation/Métis/Inuit populations. Some teen pregnancy statistics are specific to Canadian First Nation/Métis/Inuit communities. However, the most recent (2007) analysis of statistics relating to second and subsequent births to teens does not include a breakdown of First Nation/Métis/Inuit versus general population birth rates (Rotermann, 2007). There are provincial and territorial level statistics, and from these it is evident that average annual rates of second or subsequent teen (15 to 19 years) births for the years 2001 to 2003, are significantly higher in regions that also have large First Nation/Métis/Inuit populations.

Provinces and territories also vary greatly in issues such as isolation, access to services, poverty, unemployment etc., and any comparisons or inferences should take these factors into consideration.

Provincial and Territorial Trends

Compared to a national annual average of 2.6 subsequent births per 1,000 women aged 15 to 19 years, western provinces and northern territories, with the exception of British Columbia (1.5), had higher annual averages. Nunavut (31.9) had the highest annual average rate per 1,000 of subsequent teen births, followed by Manitoba (6.8), Saskatchewan (6.3) and Yukon/North West Territories (4.1). When compared to the national annual average, eastern provinces had comparable or significantly lower rates. Average annual rates for Ontario were excluded from this statistical analysis, due to the reasons discussed on the previous page.

The exceptionally high rate of subsequent teen pregnancies in Nunavut should also be considered in the context of age related birth statistics for that territory, and for Canada as a whole. Birth statistics for Nunavut do not follow

the national age specific trends. For Canada as a whole, 2006 statistics show that the highest percentage of live births occurs in the 30 to 34 years age group (31.4%), followed by the 25 to 29 years age group (30.7%), and the 20 to 24 age group (15.9%). This contrasts dramatically with the percentages for Nunavut, where the highest percentage of live births is in the 20 to 24 years age group (30.9%), followed by the 15-19 years group (24%), the 25 to 29 years group (23.8%), and the 30 to 34 years group (12.3%).

High rates of subsequent teen pregnancy reflect a trend for early childbearing in Nunavut. The average age of Canadian women who give birth has been rising over the last decades, and in 2004 was 29.7 years. In Nunavut, the average age of women giving birth was 25 years in 2004 (Statistics Canada, 2006). The population in Nunavut is also the youngest in Canada, with the median age in 2006 being 23.1 years, compared to the Canadian median age of 39.5 years. Nunavut's youthful population is also indicative of a life expectancy rate that is 11.4 years less (68.5 years) than the national average (79.9 years) (Statistics Canada, 2005).

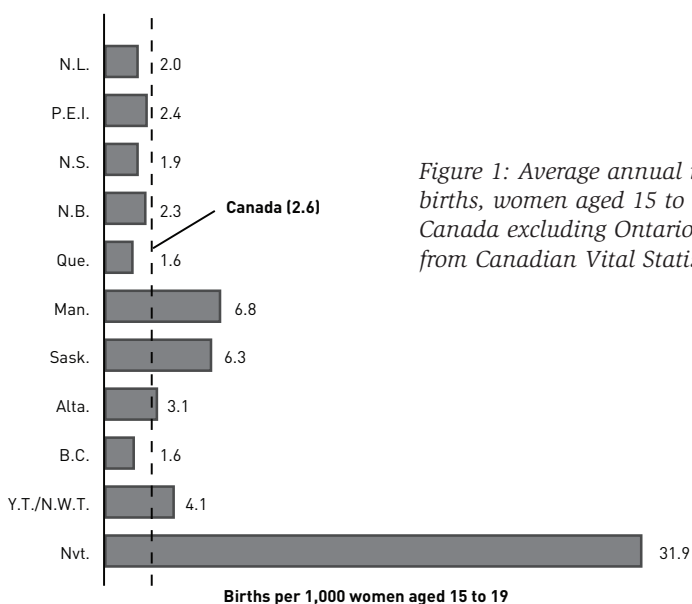


Figure 1: Average annual rate of second or subsequent births, women aged 15 to 19, by province and territory, Canada excluding Ontario, 2001 to 2003. Based on data from Canadian Vital Statistics Database.

Trends by Age of Mother

When analyzing teen birth and pregnancy statistics it is important to do so in the context of birth and pregnancy statistics for all age groups. Births to women in the 15 to 19 years age bracket can be seen as part of the broader picture of Canadian birth trends. Identifying trends across different age groups necessitates a view of all women as mothers, regardless of age. This can be one way of considering the perception that teen mothers are essentially different from women who give birth after the age of 20.

Figure 2 shows the percentage of live births by age and parity, to women of different age groups for the years 2000 to 2006. The percentage of live births that were second births for 15 to 19 year old women showed a slight increase in 2006 (12.9) from 2005 (12.3), however the percentage still remains lower than that of 2000 (14.1%). For women in their

20s, the percentage of second births in 2006 also showed a slight decline from 2000 percentages. There were slight increases in percentages of second births for women in the 30 to 44 year age group, with the highest increase among women aged 35 to 39 years of age.

Fluctuations in teen birth statistics tend to follow a pattern similar to that for older women. In this case, the percentages of all live births to women show a similar trend over the years from 2000 to 2006, when compared to percentages of second births. The percentages of live births for women aged 15-19 and for those in their 20s showed a slight decrease from 2000 to 2006. Women in their 30s and those aged 40-44 years had a slightly higher percentage of live births in 2006 when compared to 2000. This pattern of increases and decreases in the percentage of live births, for various age groups, corresponds to the pattern for second births.

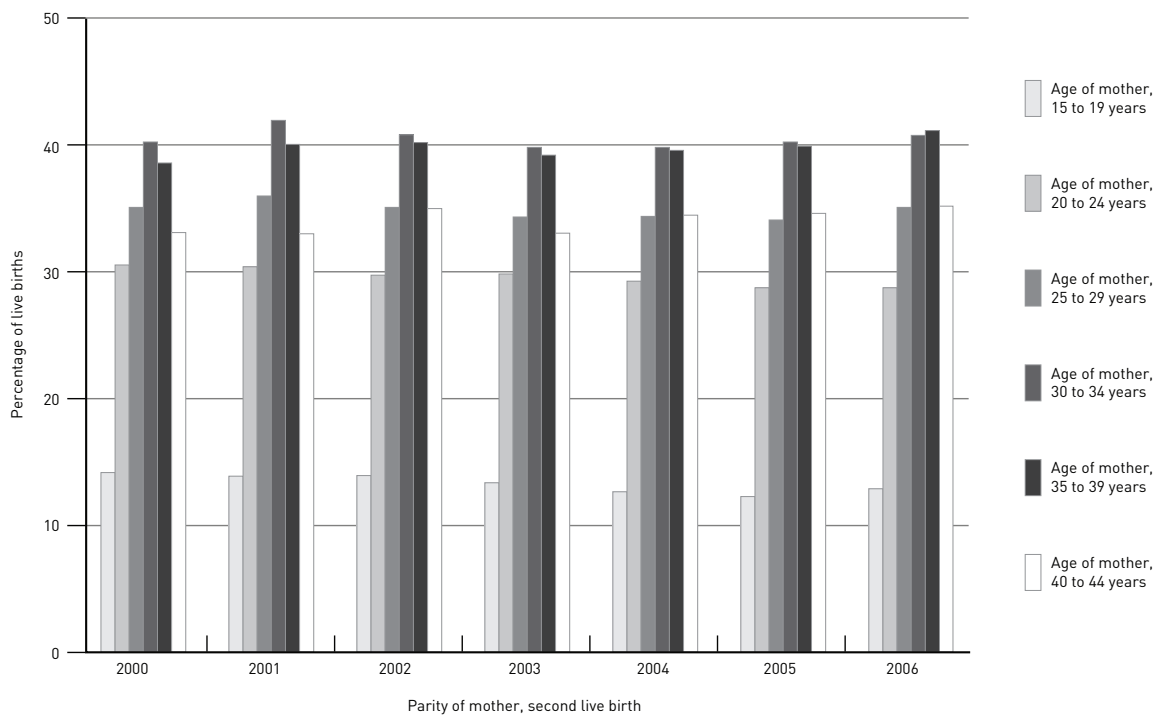


Figure 2: Live births by age and parity of mother (second live birth).
Based on data from Statistics Canada, CANSIM database.

Summary of Statistical Trends:

- The rate of teen pregnancies is decreasing in Canada.
- There has been a decrease in the number of subsequent teen pregnancies, and the proportion of subsequent teen pregnancies, as compared to all teen pregnancies in Canada.
- In Canada in 2003, 15.2% of teen (15 to 19 years) births were subsequent births.
- Nunavut had the highest annual average rate of subsequent teen births, followed by Manitoba, Saskatchewan and Yukon/North West Territories.
- Ontario data is excluded due to statistical problems.



3. Socioeconomic Factors Associated with Subsequent Teen Pregnancies

Teen pregnancy is often discussed in terms of medical, social and economic implications for young mothers and their children. In an attempt to prevent teen and subsequent teen pregnancies, research has sought to identify the factors that may predispose young women to have a teen birth. As well, the economic impact of a teen birth for mothers and their children has been the focus of various studies. Research cannot offer definitive answers to the questions of who is most likely to have a teen pregnancy, why and at what cost to the individuals involved. At best, research interprets trends, statistics and outcomes and at the same time notes the limitations of studies, and highlights unanswered questions. A constant theme in much of the research is the complexity of issues surrounding teen pregnancy. The medical, social and economic issues related to teen pregnancy should not be viewed in isolation from each other. Issues around subsequent teen pregnancy, for many reasons, are more difficult and complicated to explore than those of first time teen pregnancies.



Contributing Factors

The “puzzling” insistence of some teens to have subsequent pregnancies, even though “they regularly confront sleepless nights, crowded days, and restricted social activities,” has led to the creation of many reports and studies that attempt to identify risk factors (Klerman, 2004). Studies have noted certain factors that could influence the rate of second or subsequent teen pregnancies among specific populations. Other studies conclude that the reasons why some teens go on to have a second pregnancy while others do not, are not easily predicted or understood. Research repeatedly shows that some teens with a number of recognized risk factors do not have a subsequent pregnancy, while others do. Evidence in some areas appears contradictory, for example, poor pregnancy outcomes and good parenting experiences are each associated with increased risk for a subsequent teen pregnancy (Stevens-Simon et al., 1998; Boardman et al., 2006).

The decision to have a subsequent teen pregnancy often defies the logic of interventions that are designed to educate and motivate teens to postpone childbearing until they have accomplished certain life goals. However, teens with a number of risk factors for subsequent pregnancies often experience a range of challenges and disadvantages, and would benefit from interventions that support and assist them in their parenting, educational, and personal development, regardless of whether they ultimately avoid a subsequent pregnancy.

Factors that appear to predispose a teen mother to a subsequent teen pregnancy are often similar to factors that are considered to be risks for a first teen pregnancy. Teens who have dropped out of school or who are failing



in school are more likely to have a subsequent pregnancy, as are teens who had a first pregnancy at 16 years of age or younger (Gray et al., 2006; Raneri & Wiemann, 2007; Boardman et al., 2006). However, paradoxically, some studies have shown that a return to school or employment soon after a first pregnancy increases the likelihood of a subsequent teen birth (Stevens-Simon et al., 2001). Reasons for this may lie with a mother's desire for a second child, alienation from the school system, a general disinterest in educational goals and a preference for full-time mothering.

Subsequent teen pregnancies are more likely among teens whose first pregnancy was planned, or whose first pregnancy resulted in a preterm birth, a low birth weight baby, a baby born with illness or birth defects (Boardman et al., 2006). In addition, many studies recognize that teens who have a positive experience with their first pregnancy and who have a higher level of self-esteem associated with their parenting roles, are more likely to experience a subsequent teen pregnancy (Black et al., 2006; Davis, 2002; Kalmuss & Namerow, 1994; Rubin & East, 1999).

A lack of future educational or career related goals is also a noted risk factor (Gray et al., 2006; Davis, 2002). Teens who believe that they have future opportunities other than parenting are more likely to postpone childbearing in order to achieve their goals. Research indicates that teens from disadvantaged backgrounds are more likely to accept pregnancy and parenting as a viable life option, due to factors such as familial poverty, a lack of educational or employment possibilities (Corcoran & Pillai, 2007). Lower rates of subsequent pregnancies are usually found among more socio-economically advantaged teens who participate in prevention programs. Whether this tendency reflects the success of the program or the increased motivation and options available to these teens is a key question.

Cultural groups that stress the importance of parenting can predispose teens to accept early pregnancy and parenting (Corcoran & Pillai, 2007). These cultural groups may view early pregnancy as a social norm and may neither condemn nor discourage first or subsequent teen pregnancies.

Teens that experience domestic violence or depression are more likely to have a subsequent pregnancy (Barnet et al., 2008; Raneri & Wiemann, 2007). These risk factors decrease a teen's sense of personal agency, which is a belief in one's ability to act in a confident and strong manner in order to achieve a positive goal. This in turn can increase the risk of unprotected and or coercive sex.

Relationship related risk factors range from having a live-in partner, or being married, to having a new partner, or having an older partner.

Some research has concluded that teens who live with their mothers after having a first child, and rely on them for childcare assistance, are more likely to have a subsequent pregnancy

(East & Felice, 1996), while other studies suggest that having a poor relationship with a mother is a risk factor for a subsequent pregnancy (Raneri & Wiemann, 2007; Stevens-Simon et al., 2001).

It is evident from the range of possible risk factors that the reasons for a subsequent teen pregnancy are multi-faceted and complex. Interventions that focus on one or two specific risk factors often fail to achieve the desired result of reducing the rate of subsequent teen pregnancies. Programs that encourage contraceptive use, offer parenting support, and facilitate return to school and employment do not always result in lower pregnancy rates. Evaluations of interventions that address crucial risk factors often conclude that there are unquantifiable issues at work that affect

rates of subsequent teen pregnancy. One researcher has suggested that in the absence of a framework for understanding risk factors, the most effective way to prevent subsequent teen pregnancies lies with the use of long acting contraceptives (hormonal birth control or an IUD). The argument being that if a teen can avoid a pregnancy for an extended period of time through the use of long acting contraceptives, then health care providers and social service agencies can use this time to encourage her to develop an alternative life course that would provide the motivation and means to delay childbearing beyond the teen years (Stevens-Simon et al., 2001). Contraceptives other than long acting ones can easily be discontinued or used inaccurately which could result in a subsequent teen pregnancy.

Factors associated with Subsequent Teen Pregnancies:

- Dropping out of school
- Failing in school
- Having a first pregnancy at 16 years of age or younger
- Returning to school or employment soon after a first pregnancy
- Having an intended first teen pregnancy
- Having a first teen pregnancy with a poor outcome
- Having a positive parenting experience with a first pregnancy
- Lacking future education or career goals
- Coming from a disadvantaged background
- Belonging to a cultural group that views early pregnancy as a social norm
- Experiencing domestic violence or depression
- Having a live-in partner
- Being married
- Having a new partner
- Having an older partner
- Living with her mother after having a first child, and relying on them for childcare assistance
- Having a poor relationship with her mother



Intended versus Unintended Pregnancies

The literature on teen pregnancy prevention and subsequent pregnancy prevention generally assumes that teen pregnancy is unintended and unwanted. However, research in the area of subsequent teen pregnancy often reveals a higher level of intention (Rubin & East, 1999; Coleman & Cater, 2006; Seamark, 2001). Teens may report that they planned a second pregnancy, or that they did not actively avoid a second pregnancy. In one study, researchers compared the characteristics of teens who reported that their second pregnancy was planned versus teens whose second pregnancy “just happened.” Teens who reported that they had planned their second pregnancy were more likely either to be married to or to live with the father of their first baby, and to be financially dependent on him. These teens were also more likely to have dropped out of school

before conception, whereas teens whose pregnancies “just happened” tended to leave school after learning of the pregnancy. Significantly more teens in the “just happened” group (75%) opted for an abortion; while fewer teens (37%) who wanted the pregnancy went on to have an abortion (Rubin & East, 1999).

Teens who choose to have a closely spaced second pregnancy do so for different reasons, and often the reasons they articulate are similar to those given by women of any age (Coleman & Cater, 2006; Cater & Coleman, 2006). Teen mothers mention the desire to have siblings who are close in age. They also point to the importance of having children while they are young and energetic so that they can be actively involved in their children’s activities and relate to the challenges of childhood and adolescence. Many women who choose to have more than one teen pregnancy prefer to raise their children before they pursue education or career related goals. When their children are older, teen mothers reason that they will be able to enter school or the workforce while they are still youthful. However, others are not interested in further education and consider their employment opportunities to be limited to low paying retail or service oriented jobs. In such instances, the prospect of full time mothering may offer more fulfillment than a “dead-end job” at minimum wage and there may be little motivation to avoid closely spaced pregnancies. Family patterns related to early childbearing also play a role in the decision making process of teen mothers. Some teens who have subsequent teen pregnancies comment that their mother followed the same pattern of early parenting. Teen mothers and their partners may decide together that they want to expand their family.



“I don’t think there’s any point now, in waiting another 10 years to have another kid because then we’re starting from the beginning again... I think it’s better if we’re gonna have the kids we want, have ‘em in – within the next like, five years, and then in 10 years or so, we’ll have our lives back. We’ll – we’ll be able to do what we want, when we want, really.”

Mother, aged 17 (Cater & Coleman, 2006)

“I always wanted to do just what my mum did – it worked for her! She never wanted anything else, and that was the same for me. It’s hard, but she’s a good baby and I’d rather do this all day than work – well, it’s still working but y’know what I mean.”

Mother, aged 15 (Cater & Coleman, 2006)

“...as I see it, when they grow up, I’ve still got loads of my life left to go and do what I want to.”

Teen mother (Seamark & Lings, 2004)

The concept of subsequent teen pregnancy as a problem to be addressed has been questioned by some. Viewing teen pregnancy in this way casts it in the role of deviant adolescent behaviour, similar to that of smoking or substance use. One criticism of this viewpoint is that it reflects the values of a mainstream, middleclass culture, and marginalizes the values of other cultures and communities. The reality of planned and/or wanted subsequent teen pregnancies cannot be discounted.

“Looking at young motherhood and repeat pregnancies through middle-class assumptions... fails to recognize that, for adolescents for whom few good things happen, childbearing offers the possibility of change and the feeling of success.”

(Davis, 2002)

Given the number of studies that have been produced over the last two decades, it is interesting that researchers know so little about the thoughts, feelings and motivations of teen mothers. In the quest to identify risk factors so that behaviour can be modified, the teen mother as an individual has often been overlooked.

One evaluation of an intervention to prevent subsequent teen pregnancies refers to a young woman who did not remain non-pregnant as “one of our repeat pregnancy statistics” (Brown et al., 1998). Research needs to shift its view of teen mothers away from one of statistics and problems to be solved, towards one that sees teen mothers as young women with desires, challenges and, in most cases, strong opinions about their reproductive and parenting choices. Research that views subjects as being static, frozen in time, and defined primarily by their chronological age does not acknowledge the complexity of individuals. However, research that sees subjects as fluid individuals will contribute to a better understanding of how a host of factors influences the life course at various stages of development. There is a value in presenting pregnant and parenting teens with a range of birth control, prenatal and

parenting services, education and career options, support and encouragement, and also, ultimately, in respecting and supporting the reproductive choices made by each teen.

Economic Consequences of Having Children

Studies of the economic consequences of having children show that all women with children are at significant disadvantage in terms of employment and wages. This disadvantage tends to increase with the number of children that a woman has (Canadian Institute for Health Information, 2003).

In considering the economic consequences of subsequent teen pregnancy, the literature on teen pregnancy in general must be examined, since there are no definitive studies that have compared teens who have had one pregnancy

Summary of Reasons for Subsequent Teen Pregnancies:

- Some subsequent teen pregnancies are unexpected, unplanned and unwanted.
- Subsequent teen pregnancies are more likely to be intended than first teen pregnancies.
- Teens may indicate that they planned, or did not avoid a subsequent pregnancy.
- Teen mothers may say they want to have a subsequent pregnancy because:
 - They want to expand their family.
 - They want to have siblings who are close in age.
 - They want to have their children while they are young and energetic.
 - They want to raise their children before they pursue education or career goals.
 - They do not feel they have career or educational prospects.
 - Their mother followed the same pattern of early parenting.

with those who have had subsequent pregnancies. Studies on the economic impact of teen pregnancy are often limited in their findings, since they do not follow a large group of teen mothers over a long period of time. Short-term studies tend to conclude that teen pregnancy has a serious impact on employment and financial opportunities of teen mothers. However, longitudinal studies present a more balanced view of the economic effects of teen pregnancy. They show a narrowing of employment and wage disparities over time between women who gave birth as a teen and those who delayed childbearing until their 20s (SmithBattle, 2007).

A Canadian researcher undertook a study of the long-term economic impact of teen pregnancy and marriage (Grindstaff, 1988). He reported that by age 30, women who had had a teen birth and/or had married as a teen, had the same labour force participation as women who had delayed marriage and children until after age 25. Grindstaff's conclusion was that marriage, and childbearing at any age, had a negative impact on employment prospects for women. Women who married as teens and waited until their 20s to have children faced the same employment and economic challenges as did women who had both teen marriages and pregnancies.

The effects of pre-existing socioeconomic disadvantage cannot be ignored in studies of the economic impact of teen pregnancy. One study (SmithBattle, 2007) that followed the paths of teen mothers, their partners and children, over the course of 16 years, demonstrated a link between socioeconomic status at time of first pregnancy and the long term economic and educational prospects of teen mothers. Over time, it became apparent that teens who came from a middle class back-

ground at the time of their first pregnancy, fared much better than did their socio-economically disadvantaged counterparts.

Although middle class teen mothers faced challenges common to many teen mothers, they benefited from adopting a general life view common to their family that included expectations for educational and career related success, and marital stability. Teen mothers from disadvantaged backgrounds also tended to follow a path common to their family; however, it was a path that was less likely to include higher education, job-related success or stable marital relationships. The children of middle class teen mothers benefited from educational and recreational opportunities and a family that supported their education and career goals. The children of disadvantaged teen mothers were more likely to struggle in school, have few recreational or cultural opportunities and often were raised in a single parent home (SmithBattle, 2007).





Most of the teen mothers in this study had more than one child, and some had rapid repeat teen pregnancies. However, the major factor that predicted future economic and educational success for themselves and their families was the amount of disadvantage experienced over their lifetimes, rather than the number of teen pregnancies they had experienced. The cumulative effect of poverty, inadequate housing, limited education, and lack of employment contributed to a more negative long term outcome for disadvantaged teen mothers and their children (SmithBattle, 2007).

Summary of Economic Consequences:

- All women with children are at an economic disadvantage.
- The more children a woman has, the greater the economic disadvantage.
- Women who marry as teens and wait until their 20s to have children face the same employment and economic challenges as women who have teen marriages and pregnancies.
- Teens who come from a middle class background at the time of their first pregnancy, fare much better than socio-economically disadvantaged teens who are pregnant.
- Children of middle class teen mothers fair better in school and have more recreational opportunities and social supports than children of disadvantaged teen mothers.
- The major factor that predicts future economic and educational success for teen mothers and their families is the amount of disadvantage experienced over the teen mother's lifetime, rather than the number of teen pregnancies she experiences.

4. Medical Consequences of Subsequent Teen Pregnancies



The need to prevent a rapid repeat and/or subsequent teen pregnancy is often justified by the assertion that these pregnancies will result in serious medical consequences for young mothers and their children. Over the last few decades, various studies have explored the connection between subsequent teen pregnancies and birth outcomes. The results of these studies are inconclusive, and not all research supports the claim that subsequent teen pregnancies routinely lead to negative birth outcomes. Studies that point to a link between subsequent teen pregnancies and increased rates of low birth weight, stillbirth, and maternal mortality are often compromised by an approach that fails to consider confounding socioeconomic or lifestyle related factors. This weakness is also true of some studies that have focused on the connection between inter-pregnancy interval (the time period between a previous birth and the conception

of the next pregnancy) and birth outcomes, for women of all age groups. The following section presents findings of recent studies on the subject of inter-pregnancy intervals and birth outcomes.

Pregnancy Intervals and Birth Outcomes

Biological implications of a rapid, repeat pregnancy come into play, regardless of maternal age. A recent (Conde-Agudelo et al., 2006) meta-analysis of studies that looked at birth spacing and adverse perinatal outcomes showed a relationship between births with conception intervals of less than 18 months and increased risk of adverse outcomes such as preterm birth, low birth weight and small for gestational age. Studies also showed a link between adverse outcomes and births with conception intervals of more than 59 months (Conde-Agudelo et al., 2006). The authors included studies from both developing and

developed countries that considered confounding factors related to maternal age and socioeconomic status, among other factors. The authors concluded that reasons for the association of short and long conception intervals with adverse outcomes were unclear. They also noted that the reasons for adverse effects of early and late birth spacing could differ in developing vs. developed countries. Some of the possible explanations for the adverse outcomes associated with short inter-pregnancy intervals included maternal nutritional depletion, folate depletion, infection (i.e. STI), and maternal illness (Conde-Agudelo et al., 2006).

Adverse outcomes related to long intervals of conception were difficult to explain, but one possible view is that once a woman gives birth her body eventually returns to a pre-pregnancy state similar to that of a woman who has never given birth. Statistically, first time births carry a higher risk of adverse birth outcomes and maternal mortality. In effect, the risks of adverse outcomes for first time mothers are similar to those of women who have conceptions more than 59 months apart. One possible explanation for this finding is that pre-existing medical or anatomical factors could cause fertility problems as well as affect perinatal outcomes (Zhu et al., 1999).

The risk of adverse perinatal outcomes is highest for inter-pregnancy intervals of less than 3 months (Zhu et al., 1999). As the length of the inter-pregnancy interval increases from 3 months, the likelihood of risk decreases rapidly. In one American study of 173, 205 birth records, short inter-pregnancy intervals were associated with young maternal age, the death of a previous live-born child, poor prenatal care, a low level of education, tobacco use while pregnant, and non-white or Hispanic backgrounds. All these maternal

characteristics are risks for poor birth outcomes regardless of inter-pregnancy intervals. Longer inter-pregnancy intervals were also associated with risk factors for poor perinatal outcomes such as advanced maternal age, tobacco and/or alcohol use during pregnancy, and having had a previous pregnancy that ended in abortion or stillbirth.

A longitudinal study of over 410,000 Swedish women looked at the risks for stillbirth and early neonatal death based on inter-pregnancy interval (Stephansson et al., 2003). The researchers considered confounding factors such as maternal age, smoking, level of education, whether or not the mother lived with the father of the baby, and the mothers' country of birth. The previous reproductive history of the mother was considered, including the history of stillbirth and neonatal death. Once maternal characteristics and the previous reproductive history were taken into account, the study concluded that there was no increased risk of stillbirth or early neonatal death for short (less than 8 months) inter-pregnancy intervals. However, long intervals (36 months or longer) posed an increased risk for both outcomes. The authors proposed that women who had long inter-pregnancy intervals might have had pre-existing conditions that affected fertility and pregnancy outcomes. Women who had short inter-pregnancy intervals were more likely to have experienced adverse outcomes with their first birth, as well as having more maternal risk-related characteristics. However, once these risk-related characteristics were considered, the risk of adverse birth outcomes was not significant.

An important point to consider when reviewing the research on subsequent teen pregnancies and birth outcome is that studies do not always differentiate between a rapid, repeat pregnancy and a second pregnancy. The conditions

surrounding both circumstances can be quite different, both from a socio-economic and a health related perspective, and thus the birth outcomes for each situation could differ. The results of studies that fail to consider the unique implications for both situations cannot always be generalized to a broader population.

Cross-sectional and Longitudinal Studies

Findings of studies that examine risks associated with subsequent teen pregnancies must be considered in light of their methodology. For example, cross-sectional studies look at all first teen pregnancies in a specific population and compare them with all subsequent teen pregnancies in a population. In contrast, longitudinal studies follow the pregnancy outcomes for specific individuals, over a

given time period. The results from these two types of studies can be markedly different.

Cross-sectional studies often do not control for socioeconomic factors when analyzing results. Cross-sectional studies might include 19 year old women in the first birth cohort, even though these women will not have a second teen birth. Thus, older teens who have had one pregnancy, and teens in a more favourable socioeconomic situation who have had only one pregnancy, are then compared with younger teen mothers who have had more than one teen birth. Mothers who have more than one teen birth are usually those who are already at a higher risk of socioeconomic disadvantage, as compared to those who have only one teen birth (Klerman, 2006).

Summary of Medical Consequences:

- Studies on the medical consequences of subsequent teen pregnancies and birth outcomes are inconclusive and often fail to control for socioeconomic status and factors such as tobacco and alcohol use.
- Short inter-pregnancy intervals are associated with young maternal age.
- Once maternal characteristics and the previous reproductive history are taken into account, there is no increased risk of stillbirth or early neonatal death for short inter-pregnancy intervals.
- Cross-sectional studies that look at all teen pregnancies in a specific population, often do not control for socioeconomic factors. They often conclude that subsequent teen pregnancies have less favourable outcomes.
- Longitudinal studies that follow individual teens, show that a teen mother's second pregnancy has a more favourable outcome.
- It is important to design health promotion efforts to include underlying factors for poor medical outcomes, not just prevention strategies for subsequent teen pregnancies.
- If issues such as adequate prenatal care, social support systems, proper nutrition, economic security and housing are addressed, then the likelihood of positive medical outcomes for a subsequent teen pregnancy is greatly increased.

Findings from cross-sectional studies often report that second or subsequent teen births have less favourable outcomes than those associated with first time teen births. Longitudinal studies that follow the teen birth experiences of one individual generally reveal the opposite finding. These studies show that a teen mother's second pregnancy tends to have more favourable outcomes in terms of birth weight, gestational age, infant mortality rate, and perinatal death rate, than does her first pregnancy (Klerman, 2006). Teens who have only one pregnancy and those who have a second teen pregnancy often face very different challenges. If these challenges are not considered as confounding factors that could potentially affect the results of a study, then the conclusions made about the risks associated with subsequent teen pregnancy can be overstated. Longitudinal studies that consider a range of confounding factors, such as socioeconomic status and pre-existing health conditions, can more accurately predict whether a subsequent pregnancy causes negative medical outcomes. Cross-sectional studies must also take into account confounding factors such as levels of poverty and abuse, in order to accurately state that subsequent teen pregnancies are the cause of adverse medical outcomes (Reime et al., 2008).

One large cross-sectional study of first and second births among teens indicated that second births were at a higher risk of adverse birth outcomes such as prematurity and stillbirth, but at a reduced risk of emergency caesarean section (Smith & Pell, 2001). However, critics of this study noted that it failed to adjust for socioeconomic factors, and it did not take into account the length of inter-pregnancy intervals. While the study did look at the smoking pattern of teens, as well as

the level of prenatal care received, it did not consider other confounding factors that might affect the outcome of a second teen pregnancy such as partner violence, alcohol and drug use, social support, educational opportunities and poverty (Reime et al., 2008).

Confounding Factors

When considering studies on subsequent teen births and medical outcomes, it is important to be aware of research limitations that could affect the accuracy of a study's conclusions. It is often difficult to determine the impact of age alone on the outcomes of subsequent teen pregnancies. The inclusion or exclusion of confounding factors that could affect the validity of the results should be noted. In this way a second teen birth can be considered in the context of a mother's socioeconomic situation rather than as a purely clinical event. There are reasons why a second teen birth may result in adverse medical outcomes, and once these reasons are identified then negative outcomes may be preventable rather than inevitable. It is important to design health promotion efforts to include underlying factors for poor medical outcomes, not just prevention strategies for subsequent teen pregnancies.

To be fair to teen mothers who either plan for a second child, or find themselves unexpectedly pregnant for a second time, it is not accurate to point to studies that unequivocally prove that second teen pregnancies present medical concerns. Issues such as access to adequate prenatal care, social support systems, proper nutrition, economic security and housing are all critical to the health of mothers and their children. If these issues are addressed, then the likelihood of positive medical outcomes for a subsequent teen pregnancy is greatly increased.

5. Attitudes towards Subsequent Pregnancies



Young mothers face many of the same decisions associated with planning for future pregnancies as do older women. Decisions regarding education, work, relationships and childcare responsibilities are often difficult to sort through. Programs that support pregnant and parenting teens assist young women as they explore their possible options. Most interventions advocate the avoidance of a subsequent birth and encourage the pursuit of educational and career related goals before a second pregnancy is considered.

While the merits of education and employment versus fulltime mothering for teens seem self-evident, it cannot be assumed that all teens will choose to follow the same path. If teen mothers are viewed primarily as mothers, rather than as adolescents, the decisions regarding subsequent pregnancies become more complex. It is interesting to consider the parenting advice given to older women on the spacing of children, and to contrast this advice with the underlying messages associated with subsequent pregnancy prevention programs for teen mothers.

Popular Parenting Advice

Short spacing between pregnancies (for example 6 months between birth and the next conception) and longer spacing between pregnancies (for example 5 years between birth and the next conception), are both associated with an increased risk of poor perinatal outcomes. The ideal inter-pregnancy interval is dependant on many factors and medical advice on this topic is inconsistent. In fact, the Society of Obstetricians and Gynaecologists of Canada does not have a guideline on inter-pregnancy spacing for pregnancies with no previous medical issues. In order to examine common attitudes towards subsequent teen pregnancies, this section explores information about inter-pregnancy spacing from popular parenting sites. A brief survey of online parenting websites reveals a range of advice on the recommended interval between pregnancies. Parents are advised that there are pros and cons to having children either closely spaced or born farther apart. While experts and research point to possible negative effects of having children closely together, usually the final advice is that parents must decide what is best in their own situation.

“Research points to things parents can think about...but it shouldn't make them feel guilty or rule their decisions.”

(“Spacing pregnancy” Todaysparent.com, accessed Nov. 4, 2008)

“In all likelihood, child-rearing experts will always have something to say about the ideal spacing between siblings. And in all likelihood, couples will continue to do what feels right (or just happens) to them, and create families that are no less joyful for deviating from an expert's recommendation.”

(“The great spacing debate” Todaysparent.com, accessed Nov. 4, 2008)

Writers note that parents may attempt to carefully plan when to have subsequent children, however pregnancies often happen at unexpected times and parents generally adjust and cope as needed. The reasons for having children at different times are acknowledged as being personal and emotional, and not exclusively rational and economic. They are also very much dependent on the mother's assessment of her own abilities and desires.

"In general, it is sensible to wait at least six months to a year before trying to conceive again in order to give your next baby a healthier start to life. Other than that, there don't appear to be any major disadvantages associated with having your babies close together, although it may be more emotionally and financially demanding in the short term. The key question "Are you ready to have another baby?""

**("What age gap is best between babies?"
babycentre.ca, accessed Nov. 4, 2008)**

"When deciding how to space pregnancies, it mostly comes down to the overall physical stamina of a mom. Only a mother knows her body well enough to determine whether she can care for two young children at the same time. What the parents want and what a mother can bear, rather than the age difference between children, is most important."

(babyzone.com, accessed Nov. 4, 2008)

When planning for a second child, women are often encouraged to consider a number of factors that relate to finances, family dynamics, and personal energy levels. Experts might counsel women to delay a second pregnancy if money is an issue, or if there are troubles with a relationship. If a woman is exhausted from caring for an infant or toddler, then a second pregnancy would not be advised. However, such advice is usually presented within a broader discussion that acknowledges that there is no such thing as a "one size fits all" approach to



family planning (www.parentsconnect.com/articles/deciding_another_baby.jhtml accessed November 26, 2008).

While advice for parents does not ignore the realities of finances, relationships, childcare and personal health, prescriptive messages are generally avoided. The ability of parents to consider a range of options and come to their own decisions is respected.

“Still, although there's no “perfect time” to have another baby, some times are definitely better than others. [There]... are some factors to consider when you're trying to decide whether you're ready to add another child to your family...”

(www.parentsconnect.com/articles/deciding_another_baby.jhtml accessed November 26, 2008)

Teen Pregnancy Prevention Approaches

Recommended approaches for those working with teen mothers and prevention programs provide a dramatic contrast to online popular parenting advice. Intervention literature often starts with the assumption that teenage pregnancy is problematic for mothers, children and society in general. A subsequent or rapid, repeat teen pregnancy merely compounds the problems associated with an initial teen pregnancy, and thus is not a recommended option for teen mothers. While not all programs overtly advise teens to avoid a second birth, the recommended goals of education and paid employment do present some challenges in terms of parenting young children (Kidger, 2004).



Prevention programs are based on the belief that a second teen pregnancy will not be in the best interest of either the mother or her children. Following from this assumption, the rhetoric associated with some prevention programs can be quite aggressive. For example, the U.S. National Campaign to Prevent Teen Pregnancy (2004) refers to “targeting” teen mothers in order to convey to them the “detrimental” effects of having a second teen birth. The names of some interventions in the United States, such as “Project Redirection”, “The Second Chance Club”, and “New Chance Demonstration”, imply that teen mothers have a chance to redirect their lives only if they avoid another pregnancy. Research on recommended approaches to subsequent pregnancy prevention has referred to teen mothers as “repeaters,” which objectifies young women and reinforces the concept of teen pregnancy as a deviant behaviour. Some rather aggressive prevention approaches in the United States have used cash incentives for those who avoid a second teen birth, and financial penalties for teen mothers who do not participate in prevention programs (National Campaign to Prevent Teen Pregnancy, 2004).

Some teens perceive successful parenting as a goal they want to pursue, and this may be at odds with the more socially acceptable goals related to education and employment that are usually encouraged by prevention programs. Programs that include a very strong focus on preventing subsequent teen pregnancies may alienate teen parents who are thinking about having another baby, and inadvertently discourage their involvement with valuable services. Pregnancy and parenting are seen as important markers of adulthood by some cultures, yet teens who accept these responsibilities often feel stigmatized by a broader society that views



their choices as being irresponsible and immature (Coleman & Cater, 2006). In contrast, adult women are usually supported in their right to choose their own balance between mothering and paid employment. They are less likely to be characterized as irresponsible for making a choice that they considered to be in the best interests of both themselves and their children.

While prevention research acknowledges that some cultures and communities view teen pregnancy as a norm, rather than a deviant behaviour, the emphasis is often on the need to understand the values and attitudes of communities in order to change them (Davis, 2002). In some instances, the norms of the community are described as “undermining” the effectiveness of prevention interventions (Black et al., 2006). For example, some communities view adolescent pregnancy and parenting as positive markers of adult responsibility, and therefore support and encourage a subsequent pregnancy. When teen pregnancies and subsequent teen pregnancies are normalized within a community, then these community norms present obstacles for prevention efforts. This situation has the potential to create conflict between community members and those involved in delivering prevention programs.



Perception of Competency

The research on the competency of teen mothers is inconclusive. As with most research relating to teen pregnancy, when socioeconomic confounding factors are considered, the negative effect of maternal age on familial and social outcomes is often diminished (Fessler, 2003; Seamark & Lings, 2004). However, there is a tendency to portray teen mothers as less capable than older mothers, by virtue of their age. Teen mothers that are viewed as adolescents first, and mothers second, are assumed to be self-centred, impulsive, insecure, irresponsible and unreliable. They are seen as being in need of monitoring and guidance, in order to become competent parents (Breheny & Stephens, 2007). What might be perfectly acceptable for older mothers, such as having a second child soon after the first, is often actively discouraged for younger mothers. A teen mother who enjoys pregnancy and looks forward to having children, may be described as naïve and immature, while an older woman would be viewed positively for similar expressions of joy (Breheny & Stephens, 2007).

“It’s hard enough bringing up one child, and it’s hard enough bringing up one child with a partner, it’s really difficult. Without support... and then if you want two or three children, things go wrong shall we say.”

Doctor who works with teenage mothers
(Breheny, 2007)

The assumption that a woman knows what is best for herself is not always extended to young mothers. The following words of one young mother illustrate this point:

“When I found out I was pregnant when I was 16, everyone told me what I should do. Exactly one person told me that it was my choice, and that I needed to do what was right for me...”

Teen Mother
“I’m a teen mama and I love girl mom”,
(<http://hipmama.com/node/9597>,
accessed Nov. 26, 2008)

Another young mother noted the failure of public health nurses to connect with teens:

“Because they treat you in the way of how it’s supposed to be. They don’t treat you the way it is... because the advice might not be helpful, it may not be right.”

Mother, aged 16 (SmithBattle, 2003)

Unlike older women who are advised to consider their sense of what “feels” right, teen mothers are counselled to consider what is practical. Often, emphasis is placed on the rational choices of education and employment over what is considered to be the more emotional and irrational choice of motherhood.

Some research emphasizes the need for responsive care when working with young mothers. This involves viewing the teen as an individual, acknowledging the complexity of her life, respecting her right to choose her own life course, and offering support when needed, but not relying on a “rule book” of prescriptive care. A health care provider’s personal reaction to a teen’s decision to have a subsequent pregnancy should not affect the level of care or support offered (Fessler, 2003). Such an approach would not advocate imposing standards of parenting that conflict with the reality of a woman’s upbringing, cultural background, or personal values (SmithBattle, 2003). For example, advice to return to school while a child is an infant may conflict with family or cultural norms around providing young mothers with financial and social support so that they can remain the primary care-

givers of their children during the early years of life.

Education and career options should be made available to pregnant and parenting teens, however, informed choices of teens should be respected. The goals of young mothers must be balanced with family responsibilities and the needs of children, and may not always be achievable within the timeframe advocated by a particular program (Kitzman et al., 1997). Programs that encourage a quick return to school or employment following a birth may not meet the needs of teens who choose to delay career and education related goals until their 20s or beyond. An approach that recognizes the uniqueness of individual teen mothers and avoids standardized advice, encourages young women to consider a number of factors when contemplating a subsequent pregnancy.

Summary of Attitudes about Subsequent Teen Pregnancies:

- Adult women are usually supported in their right to choose their own balance between mothering and paid employment.
- Programs that are designed to prevent a subsequent teen pregnancy often have a bias towards education and employment rather than full time parenting.
- Some teens perceive successful parenting as a goal they want to pursue, and this may be at odds with program priorities related to education and employment.
- Teen mothers are often assumed to be self-centred, impulsive, insecure, irresponsible and unreliable.
- Teens who want a second child may be portrayed as emotional and irrational.
- Responsive care involves viewing the teen as an individual, acknowledging the complexity of her life, respecting her right to choose her own life course, and offering support when needed. It is important to recognize the uniqueness of individual teen mothers and to avoid standardized advice.

6. Prevention Programs: Examples and Evaluations

Programs designed for pregnant and parenting teens often identify the delay or prevention of a subsequent teen pregnancy as a positive maternal outcome. Such programs include elements of education and career planning, health education, life skills development and education in child health and development. They can be offered in schools, community settings and in the homes of teens. The location of the program may affect the ability of a teen mother to attend, and the content and staff may influence the interest and commitment levels of participants.



Research is inconclusive as to what program approach or setting is most effective in reducing subsequent teen pregnancy rates. A meta-analysis (Corcoran & Pillai, 2007) of 16 pregnancy prevention programs in the United States concluded that none of the approaches stood out as being the most effective in reducing the rate of subsequent teen pregnancies. While many of the programs showed a slight effect on the reduction of subsequent pregnancy rates in the short-term,

this effect often disappeared by a follow-up period of 31 months.

Evaluations of various studies can be hampered by small sample size, samples with self-selected participants, and lack of similarity between intervention and control groups. With these limitations in mind, the following sections outline some of the subsequent teen pregnancy prevention programs that have been evaluated.

Home Visiting Programs

Home visitation by professionals or paraprofessionals has been employed in efforts to reduce the rates of subsequent teen pregnancy. These programs are usually based on the premise that a close relationship with vulnerable teen mothers, developed over time through frequent visits and regular communication, will have a positive effect on maternal life course outcomes, pregnancy outcomes, child health and development. The avoidance of a subsequent teen pregnancy is generally defined as a positive maternal outcome.

The home visitor establishes a relationship with the teen mother either during her pregnancy or soon after the delivery of her child, and continues to visit the teen, in her home or in a mutually agreed upon location, for an extended period of time. Visits include educational elements related to reproductive health, child development and baby care, among others. Home visitors also offer support and guidance for teen mothers as they consider future life options related to education, employment, parenting and relationships. Ideally, home visitors also establish a connection with partners, family members and significant others.



The effectiveness of home visitation programs is measured by a number of outcomes. It is possible for such a program to improve parenting skills and health related knowledge, but to have little effect on the rates of subsequent teen pregnancy. Some home visiting interventions have been shown to reduce rates of subsequent teen pregnancy. The results of one home visiting program designed for low income urban teens in the United States, showed a significant difference between a control group and an intervention group, when the proportion of study participants that did not get pregnant was considered at specific time intervals. While in most cases it was the intervention group that had lower rates of subsequent pregnancies, at one site the intervention group had a significantly higher percentage of subsequent births at 12 months follow-up, when compared to the control group (Klerman et al., 2003).

Another intervention that employed para-professional home visitors did show slight, but significant, reductions in the rates of subsequent pregnancies (Black et al., 2006). One study that looked at the long-term results of a nurse home visiting program found reduced numbers of cumulative pregnancies among participants assessed as having higher levels of intelligence, mental health and self confidence. These were speculated to be protective factors that helped young mothers succeed at both parenting and employment, and thus provided the motivation to delay or avoid subsequent births (Olds et al., 2006). Young women who were not as resilient in these areas did not have the same motivation to avoid or delay subsequent pregnancies.

As previously mentioned, not all home visiting programs led to lower rates of subsequent pregnancy. One intervention that employed trained paraprofessionals recruited from the

community had no effect on the subsequent pregnancy rates of participants. Home visitors received 2 days of training and started contact with teens prior to the birth of their first child. Visiting continued on a biweekly basis in the first year of a child's life, and continued on a monthly basis until the child's second birthday. The visitors delivered a parenting curriculum focused on child development and health issues, as well as an adolescent curriculum that addressed relationship and sexual and reproductive health issues, including prevention of a subsequent pregnancy. When compared to a control group, the intervention group had slightly higher numbers of subsequent pregnancies. However, the program did have a positive affect on parenting attitudes and rates of school continuation (Barnet et al., 2007).

The importance of using professional nurses as home visitors, rather than paraprofessionals, has been debated. Paraprofessionals are generally drawn from the community, and often



share cultural, racial or socioeconomic backgrounds with participants. While they receive training in the delivery of the intervention, they are more often seen as mentors or peers, rather than as service providers. Some studies have supported the positive effects of this role (Hiatt, Sampson & Baird, 1997), while others have questioned the perceived lack of professional authority inherent in the mentor/peer role (Olds et al., 2002). One study that examined the differences in approaches between professional and non-professional visitors, noted that nurses spent more time on health related issues in pregnancy and infancy while paraprofessionals focused on social support and environmental factors in the home and community (Korfacher et al., 1999). However, the research does not prove that either focus is more effective in reducing subsequent pregnancies.

Community-based Programs

Research shows that the ability of community-based interventions to prevent subsequent teen pregnancies is not as great as that of home visiting programs (Klerman et al., 2003). Some community-based interventions are focused on offering education and job related services to teen mothers who receive welfare. Additional program components may include life skills training, reproductive health, and child health and development. Peer led parent support groups have formed the basis of some community focused interventions. While some program content may be similar to that of home visiting interventions, the accessibility of services, frequency of meetings, and professional background of staff, generally differ.

Community-based programs have been shown to be effective in reducing rates of teen pregnancy, however teens who have already given birth are faced with unique circumstances that



may affect their interest in, or ability to attend, community programs. For mothers of infants or young children, the location of the program can be an obstacle in itself. New mothers of any age can find it difficult to organize themselves and their children for scheduled outings. Many community-based programs have a high rate of absenteeism, especially among the most disadvantaged participants. The reasons given for missed attendance include lack of child-care, illness of child or self, lack of family or partner support, lack of transportation and conflicting appointments (American Youth Policy Forum, 1994).

The more successful home visiting programs have been offered by professional nurses who have specific expertise in the areas of sexual and reproductive health, maternal and child health and child development. These are issues that are relevant to new mothers and their families. Staff in community organizations or agencies are often social service workers or case managers, and their training or expertise might not be as specialized as that of professional nurses. Programs that focus on education and employment issues might not offer the support and advice related to relationships, contraception, and child care that many young mothers appreciate.

Community-based programs often begin after the birth of a child, while home visiting programs generally begin while the teen is pregnant (Klerman et al., 2003). Given that an identified component of successful interventions is a trusted, sustained relationship between teen and worker, the earlier such a relationship can be initiated, the more effective it will be. Many community-based programs provide resources and support for teen mothers who want to continue their education and obtain employment. In the United States, these programs are often offered with the intent of reducing welfare receipt and encouraging education and paid employment among disadvantaged teen mothers. Home visiting programs tend to focus on improving parenting skills, encouraging contraceptive use, fostering healthy domestic relationships and increasing knowledge about maternal and child health.

It should be noted that there are programs in Ontario that support pregnant and parenting teens. These programs often encourage the prevention or delay of a subsequent teen pregnancy as part of their overall emphasis on education, employment and healthy parenting skills. While programs such as LEAP (Learning, Earning and Parenting), CAPC (Community Action Program for Children), CPNP (Canada Prenatal Nutrition Program) and HBHC (Healthy Babies Healthy Children) provide valuable services to young mothers, their effectiveness in preventing or delaying subsequent teen pregnancies has not been demonstrated through carefully designed evaluation studies. Studies that compare control groups with intervention groups, and that consider the role of confounding factors in program outcomes, such as socioeconomic status and cultural and family background, would advance our understanding of what works in the Canadian context.

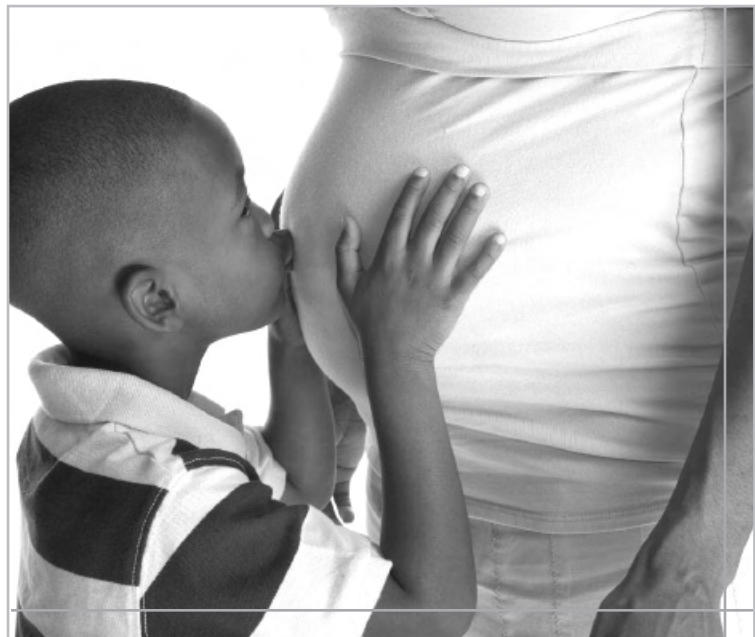
As well as quantitative studies, there is also a need for carefully designed qualitative studies that attempt to discover the “why” behind actions and behaviour (Best Start, 2007). Such studies are more subjective in their approach and tend to focus on listening to the voices of individuals, rather than on the statistical analysis of measurable outcomes.

Community-based programs that offer a combination of services including health care, social support, home visiting opportunities etc., are well suited to meet the needs of parenting teens. Strong partnerships can be instrumental in creating multi-disciplinary, community-based services for parenting teens. While this model of comprehensive service has clear benefits for pregnant and parenting teens, the evidence of impact on prevention of subsequent pregnancies, is limited.

School-based Interventions

School-based programs for pregnant and parenting teens have had some success in reducing rates of subsequent pregnancy (Klerman, 2004). However, there have been few statistically sound evaluations of such programs, and success rates are not necessarily accurate. Some of these programs have been offered in alternative school settings geared directly towards pregnant and parenting teens. Such programs offer peer support, education and career planning, contraceptive services, and case management that may include a home visiting component.

Evaluations of the The Second Chance Club, an inner city program offered in the United States, found a reduced rate of subsequent pregnancy in the 50 participants of the program when compared to subsequent pregnancy rates from a control group (Key et al., 2001). However, the authors of the study note that the comparison between intervention and control groups is compromised by the likely lack of similarity between the groups. Members of a school club are generally motivated to achieve the stated outcomes of the program, and thus represent a self-selected sample. Those in the intervention group may face additional challenges related to school, family, health, and interpersonal relationships that could affect their life options. Without knowing more about the similarities and differences between the two groups, it is difficult to determine if the intervention had an impact on the participants. It is just as likely to conclude that those teens who wanted to avoid or postpone a second birth were motivated to join the club.



Summary of Characteristics of Effective Programs:

Programs that appear to lead to a reduction or delay of subsequent teen pregnancy, as well as to other positive outcomes, share some common characteristics.

The following program components are acknowledged as being key to successful programming for pregnant and parenting teens:

- An individualized and sustained relationship with a primary staff person.
- Program personnel that are knowledgeable about contraception, sexual and reproductive health issues, and are comfortable discussing these issues with teens and their partners.
- Program implementation during pregnancy and continuation for up to 3 years after the birth.
- Counselling to facilitate continuation of education and planning for future employment.
- Support for parenting and childcare responsibilities.
- Access to health and mental health services.
- Involvement of partners and family members.

Key Points

Community-based and school-based interventions provide valuable access to peer support, health services and education and career planning. Research has shown that such programs can increase school continuation, improve parenting knowledge, and positively impact child development (Key et al., 2001). Home visiting programs play an important supportive role for young mothers and their families and have been linked to improved parenting skills and attitudes, increased school participation and employment, improved prenatal health and reduced childhood injuries (Olds et al., 2006).

Some research points to the effectiveness of these interventions in reducing rates of subsequent teen pregnancy and increasing time between pregnancies, while other research does not find statistically significant reductions in numbers or spacing of subsequent pregnancies.

It can be argued that the prevention of subsequent teen births should be seen as a secondary outcome of such programs, and the primary outcomes should be improved maternal and child health, and the alleviation of socioeconomic disadvantage for teen mothers and their children.

7. Conclusions



Programs that include parenting teens who are either considering another pregnancy or who have already become pregnant again must approach the issue of subsequent pregnancy with sensitivity. Teen mothers cannot be defined solely by their chronological age. Although teen parents often face unique challenges, their maternal role must be respected as it would be for women of any age. It is important for those who work with pregnant and parenting teens to be aware of personal and societal attitudes towards the issue of subsequent teen births. Attitudes and approaches to the issue of pregnancy spacing are often quite different for teens as opposed to older women. Respect for personal decision-making is not always present in the teen pregnancy prevention literature.

Because of the inconclusive evidence for negative consequences following subsequent teen pregnancies, and the limited evidence for the success of prevention interventions, subsequent teen pregnancy prevention strategies should be approached with caution. The profile of teens who have a subsequent pregnancy can differ in crucial ways from teens who have an unwanted and unplanned first pregnancy. Subsequent teen pregnancies

are more often planned and wanted than first pregnancies, and often follow a conscious decision to continue childbearing on the part of a teen mother.

Programs that include prevention messages should acknowledge that some teens do not want to have additional children, and others will choose to have more children. The decision to parent is an intensely personal decision at any age and will involve practical as well as emotional elements. Respectful services for teen families should offer a range of parenting supports, family planning information, health services, educational and social supports, and provide opportunities to discuss and explore future life options. The focus should be on supporting the needs and interests of pregnant and parenting teens, and within this structure, ensuring that key prevention services such as access to birth control, and information about positive relationships and sexuality are offered in a non-judgemental manner.

This report clearly indicates the need for additional research to guide our work in considering approaches to prevent or delay subsequent teen pregnancy. There is a need for carefully controlled evaluation studies to determine the effectiveness of approaches used in the Canadian and Ontario context. A key aspect of any teen pregnancy research is a commitment to listen to the voices of young women. This will contribute to a better understanding of how best to support teens in their decisions to avoid, delay or pursue subsequent pregnancies.

“My friend has two children and is pregnant again. Her CAS worker told her she should, “Stop having babies, they’ll be taken away because you’re too young”. My friend felt sad and cried.”

Paraphrase from an interview
with a Teen Parent

Recommendations for Service Providers:

- Introduce supportive programs for teen mothers and their families during pregnancy, or soon after the birth of a first child. Ideally, a personal connection should be fostered between teens and their families and program personnel. Services should include supports related to perinatal health, transition to parenting, and parenting.
- Long term programs that last for up to three years after the birth of a first child have the best chance of providing the necessary support that will assist young mothers in furthering their education, increasing their employment opportunities and improving their parenting and relationship skills.
- Encourage teen mothers to consider a range of life course options, including education, employment and parenting. Thoughtful consideration of all options should involve a discussion of possible barriers and challenges, and ways to address these issues.
- Decisions around timing of future pregnancies should be acknowledged to be personal choices that a young mother is free to make, based on her own desires, goals and perceived capabilities.
- Programming supports and options should be included for teens who make a range of different choices and balances in terms of reproduction, career and education.
- Programs should be based on respect for cultural, religious, and community norms. To ensure that programs are built on respect, planners must have an intimate knowledge of communities, gained through discussion and personal contact.
- Teens have important perspectives to share with those who plan and implement programs. The voices of teens, their concerns, their hopes, and their joy in their children should be an important component of program planning.
- The message that a subsequent teen pregnancy automatically results in negative medical, social and economic consequences should not be conveyed.
- Teen mothers who have a subsequent teen pregnancy, either planned or unplanned, should not be portrayed as failures.
- Those who work with teen mothers should be aware of their own assumptions regarding the issue of teen pregnancy and subsequent teen pregnancies. Service providers are encouraged to review research that challenges commonly held beliefs regarding the reasons for, and the consequences of teen pregnancy.

Additional Reading

ORGANIZATION	RESOURCES AND SERVICES
<p>Best Start Resource Centre Update Report on Teen Pregnancy Prevention Teen Pregnancy Prevention: Exploring Out-of-school Approaches www.beststart.org</p>	<ul style="list-style-type: none"> • Best Start Resource Centre/SIECCAN reports on teen pregnancy prevention available online • Reports include statistics, research, issues and program examples
<p>Canadian Federation for Sexual Health www.cfsh.ca</p>	<ul style="list-style-type: none"> • Information and resources for youth, parents and service providers • Sexual and reproductive health dictionary • Statistics • Contraception and emergency contraception resources and information • Finding Our Way: A Sexual and Reproductive Health Sourcebook for Aboriginal Communities
<p>Centre of Excellence for Youth Engagement www.engagementcentre.ca</p>	<ul style="list-style-type: none"> • Collection of research, resources, tools and best practices for initiating meaningful youth engagement and youth-adult partnerships, from policy to community project design and implementation
<p>Guttmacher Institute www.guttmacher.org</p>	<ul style="list-style-type: none"> • Fact sheets • Articles • Reports • Presentation tools
<p>Ontario Federation of Indian Friendship Centres www.ofifc.org</p>	<ul style="list-style-type: none"> • Tenuous Connections: Urban Aboriginal Youth and Sexual Health & Pregnancy
<p>Public Health Agency of Canada Population Health www.phac-aspc.gc.ca</p>	<ul style="list-style-type: none"> • Overview of the determinants of health, from the Public Health Agency of Canada • Research • Links • On the Move: Mobilizing Community and Engaging Youth to Reduce Rates of Teen Pregnancy in Canada
<p>ReCapp: Youth Development and Adolescent Pregnancy Prevention www.etr.org/recapp</p>	<ul style="list-style-type: none"> • Overview of youth development approaches to pregnancy prevention, including practical steps for program implementation • Research • Links • Program examples
<p>Sex Information and Education Council of Canada www.sieccan.org</p>	<ul style="list-style-type: none"> • Canadian Journal of Human Sexuality • Sexual Health Education in the Schools Q&As • Adolescent Sexual and Reproductive Health in Canada • Research articles

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Best Start: Ontario's Maternal, Newborn and Early Child Development Resource Centre

180 Dundas Street West, Suite 1900, Toronto, Ontario M5G 1Z8

Tel: 1-800-397-9567 or 416-408-2249 • Fax: 416-408-2122 • beststart@healthnexus.ca • www.beststart.org

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The Best Start Resource Centre supports service providers across Ontario through consultation, training and resources, in the areas of preconception, prenatal and child health. The Best Start Resource Centre is a key program of Health Nexus.